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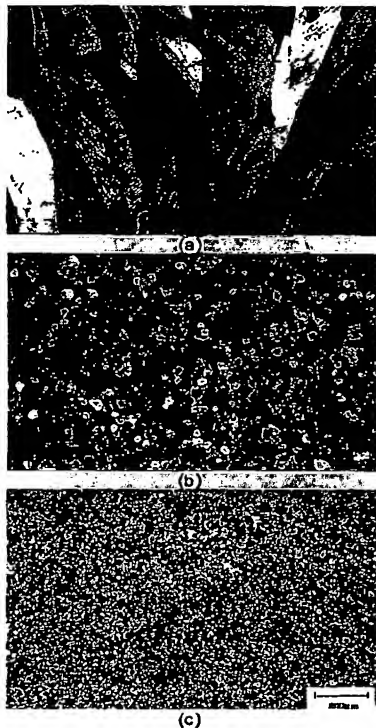
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(54) Title: MAGNESIUM-ZIRCONIUM ALLOYING



Optical micrographs showing the grain refining ability of pretreated  
sponge when added to pure magnesium at 680 °C. All micrographs are of the  
same magnification. (a) Pure magnesium, (b) after adding 1 wt% sponge  
followed by 20 minutes manual stirring, and (c) after a further 10 minutes stirring.

(57) Abstract: Zirconium sponge can be chemically  
depassivated by treatment with hydrofluoric acid to  
improve the ability of molten magnesium/magnesium  
alloy to dissolve zirconium from the treated zirconium  
sponge and to form a melt containing substantially  
evenly distributed particles of zirconium.

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